

REMARKS

Applicant expresses appreciation to the Examiner for determining that Claim 9 contains allowable subject matter.

The disclosure has been objected to and the claims have been rejected under 35 U.S.C. 112, second paragraph. Applicant has amended the disclosure and claims to overcome these objections and rejections.

Claims 1, 5, 6, 8, 10, 15, 18-20 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Dencker, EP 1011182 (see ph 7 of the Office Action). Claims 2, 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dencker in view of Clark *et al.*, USP 6,319,346 (see ph 19 of the Office Action). Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dencker in view of Bartlett, USPAP 2003/0141721 (see ph 25 of the Office Action). Claims 11-12 are rejected under 35 USC 103(a) as unpatentable over Dencker (see ph 29 of the Office Action). Claim 13 is rejected under 35 USC 103(a) as unpatentable over Dencker in view of Applicant's admitted prior art, specifically page 3 lines 5-10 of Applicant's specification (see ph 31 of the Office Action). Claims 10, 14, 16, 21 and 23-26 rejected under 35 U.S.C. 103(a) as being unpatentable over Dencker in view of Johansen, USP 7,040,864 (see ph 35 of the Office Action). Claim 26 is rejected under 35 USC 103(a) as unpatentable over Dencker in view of Johansen and in further view of Cline, USP 4,237,514 (see ph 52 of the Office Action). Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Dencker in view of Johansen and in further view of Olsen, USP 6,457,943 (see ph 56 of the Office Action).

Applicant respectfully disagrees with the rejections and provides the following traverse.

Claim 1 recites a method of manufacturing a fiber reinforced blade, which includes both “means for conducting to earth” and “segmented conductor means...for guiding a lightning current outside the blade to the means for conducting current to earth.”

Furthermore, at paragraph [0008] of the specification discloses:

“Novel aspects of the method according to the invention involve that the method comprises that the blade is provided with segmented conductor means that are configured for conducting a lightning current outside the blade to the means for conducting to earth, and wherein the conductor means are distributed and secured at the external surface of the blade shell in a manner to enable the conductor means to be essentially in level with the external surface of the blade shell.”

As indicated, the claims and specification distinguish between the means for conducting current to earth and the segmented conductor means. The former is able to conduct a current from a lightning strike to earth. This is, however, not the case for the segmented conductor means, which is configured for guiding current from a lightning strike outside the wind power blade. That is, sparks form an ionized air pathway over the segmented conductor means just above the surface of the blade, which leads to a receptor, which then conducts or guides the current to earth. The segmented conductor means represents a non-destructive

solution to the problem of lightning protection, and is able to conduct an indefinite number of lightning strikes above the surface of the blade to the mentioned receptor connected to earth.

The Dencker solution, on the other hand, is a retrofitted lightning protection tape, which is expected to become damaged and need replacement after a lightning strike (see phs [0041] and [0042] of Denker). That is, the current of the lightning strike runs through and destroys Denker's lightning protection tape. Denker emphasizes the benefit of destroying the tape by stating at ph [0041] that damaging the tape "...result[s] in preventing the longitudinal member from being damaged."

There are at least two notable differences between Denker's lightning protection tape and the claimed segmented conductor means. Firstly, lightning runs directly though Denker's tape, so that Denker's tape is more equivalent to the claimed means for conducting to earth as compared with the claimed segmented conductor means. This is because lightning does not run through, but is directed through ionized air above, the segment conductor means.

Secondly, the segment conductor means can withstand an indefinite number of lightning strikes, while Denker's tape must be replaced after a lightning strike. The costs associated with such a replacement are large regardless of whether the wind power plant is placed onshore or offshore. In addition, there are missed earnings from power generation during the downtime.

Further, since lightning strikes rarely come as single events, the risk of severely damaging the blades and the wind power plant is significant during the time it takes to replace damaged lightning protection tape.

As Denker does not teach the claimed segment conductor means, the claims are patentable over this prior art publication. Furthermore, as the remaining references do not teach each claimed limitation, it is respectfully asserted that the invention is patentable over the cited art. Accordingly, a notice of allowance is respectfully solicited.

Respectfully submitted,

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